1875. General (NS-75-001)

This folder contains two documents. The first is by Charles Batchelor and is a list of possible inventions labeled "Wanted May 31 1875." A similar list can be found on page 2 of Cat. 1214, Account Series. Cost accounts for experiments related to these lists can be found on pages 60-126 of Cat. 1214.

The second document consists of 16 pages of notes and drawings by Edison relating to experiments on the electromotograph, some of which may concern the use of that device for telegraphy.

Wanted May 31 1875

4. 1 A Method of making Malleable iron out of cast iron

2 Making cast iron as hard as steel & & have some of the same properties

3 A method of making 'sawdust' soluble & form a cheap substitute for Ebony Hard rubber or Celluloid.

4 A cheap intense green equal to Aniline green without Iodine or Arsenic.

5 An Electromagnet which does not require wire

6 The formation of organic substances for the decomposition of water under certain influences.

7 A Kerosene or other oil lamp which burns without chimney & gives a bright light

8 A new Engraving process

9 A Galvanic Battery of equal constancy & Daniels but with an electromotive force equal or nearly equal to Grove.

10 A substance which will not pass or pass but little P. current & all of a N current

11 A New force for Telegraphic communication

12 Make soluble peroxidized paper with less acid than the Celluloid Co.

13 A cheap process for the extraction of low grade ores, decomposed and like either Carb Ag. or H_2S Ag. ores.

14 A Platina solution cheap & as delicate as Iodide of Potassium without drawbacks

15 A Detector for Gold & Silver at a distance.

16 A Polarized Electromotograph.

17 A Lendupleex Telegraph.

0	18	A copying press that will take 100 copies & upsetch.			*
	19	A Cheap process of printing new.			
	20				
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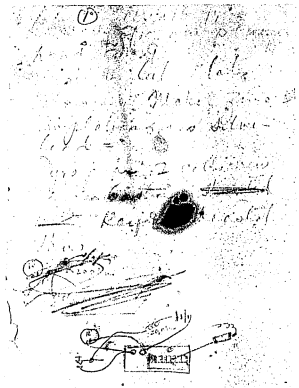
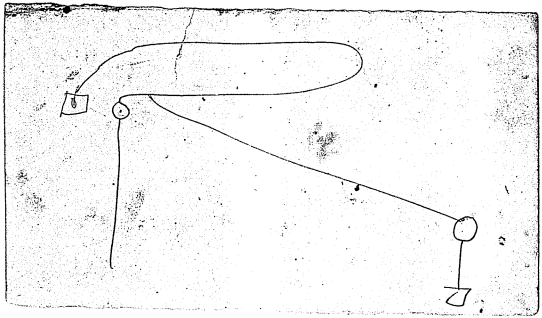


When all current passed through the gyr paper it slipped in all metals with Hydro by decreasing Resistance. If the R. [illegible] a small friction were through probably

2 Discov

1/4 all the metals except ~~[illegible]~~ Tin showed an increase in friction on passing the current but tin still showed the slip. ~~in~~ but 6 y still further. During the current ~~the~~ so that [illegible] passed through Tin stopped slipping and increased its friction. Another [illegible] thing was that when all metals except tin had an increased friction on the moment of closing the normal friction was increased say 10 degrees on opening the friction was increased to 30 deg but almost instantly subsiding the instant the current was interrupted the friction was fearful strong.



3 discovery

This friction may be represented like

Normal friction ——
Increased friction ——
Friction on opening —

or

I then tried a paper with a solution of Caustic potash but ~~could~~ on account of small Current used it didn't show anything, not being near as sensitive as pyro

I then put some acid NaCl in with the Caustic potash when I found that this strip for Excellent library the

4 discovery

Pyro - and gave an unexpected phenomenon,

No increase of friction Could be noticed on closing but all metals after the Current was very much weakened gave no results except zinc and this was very marked after all else even tin had ceased - and the slip was naturally

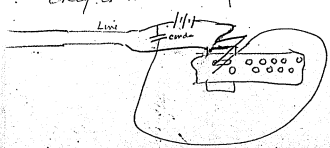
This paper is the most valuable: yet found & stained be used on azure drum

5 discovery
Have found that Silver
is even better than zinc
on any low current
though on an exceedingly
fine current zinc may
be better, aluminum
appears well on a fine
current its all slip with
slowly momentary opening
friction, tried paraffined
paper (10) wood paper
and it appears better
than common Boston
perhaps thick wood
paper will be better

6 discovery
I gave zinc the preference
of silver with a low
current on wood paper
thick,
Platina is exceedingly bad
gives very little with fine
current on, tin middling
Silver slightly [illegible]
but O very slightly -
perhaps some other do but
not natural [illegible]
We wet 2 rolls of
Baritro K + NaCl
+ used on EMly
found that with sending

7 discovery

Shunt 1300 ohm & the Condenser that we could by shunting E.M.L. repeat slowly so it could be read though very ragged without shunt nothing, with this arrangement words could be read but they were somewhat ragged. They is something in it



This weakens the first part of a dash &

8 discovery

leaves end full strength as the first portion of batty current has two routes, the line & Condenser until Condr is charged full current dont go on line. the secondary pair short circuits the Condenser through the discharging holes & prevents its charge going on the line,

With the galvanometer high speed straight (1500 ohm) 20-cell battery that was even obtained about 1200 words a minute =

9..

With the new lever the Escapement we could get higher speeds but the separating contact was very inferior for some reason, we had no spring on platina points yet ~~[illegible]~~ I am under the impression that the old right-angle vibrator would do good separating without a spring. ~~The~~ We intend ~~[illegible]~~ putting on a spring on new lever to test contact,

The lever used with the Polarized salt paper

10 discovery

was the old style = after getting 1200 words per minute ~~[illegible]~~ ~~(10)~~ 1500 ohms to Instructor Emly with 100 & also with 1000 ohms but could get rather ~~that~~ was readable at 75-1 words minute This shows that some powerful secondary force acting or alternate circulate within the dissimilar which throws whole thing out of adjustment

11 Discovery

We have found that the think wood paper used for perforating answer admirably for Emly it is more even & less friction than rag paper used for learning =

We now 350 am are going to make various Emly solution for test on hand Emly to endeavour to obtain a paper free from this secondary phenomenon

12 Discovery

Sulphate Copper increases friction on H. very painful when not shunted —

Zinc not shunted on O it increases friction when shunted it "slips" best on zinc

Bichromate K on H. full slips slightly on O full friction great vibrating shunted friction best on O blue, shunted blue slight friction green on blue

Sulphuret K nothing on any except slight friction. Thumb on blue on H

13. Discovery

Tartaric Acid nothing

Grape sugar. friction

great on ⊖ = platina & silver

best,

Borax, Iodine increased

on ⊖. platina & silver

nothing on ⊕,

[illegible] mix

on Skin

Carbonate Cu mix

unvaluable

14 Discovery

Hypersulphite Soda

Nothing on ⊖ slip

on ⊕ good Gold Platina

& Silver better perhaps

better = Iron shunted

Cross same

Silver 2 cells, 75 ohm main

Key and Emly (hand strong)

shunted with or without, 200 ohms

Cocoa [illegible]

Nothing [illegible]

Hyposulphite Soda & Sesq

Chl Fe mixed nothing on ⊖

Friction increased on ⊕

but nothing valuable when shunted

15 Dec 29

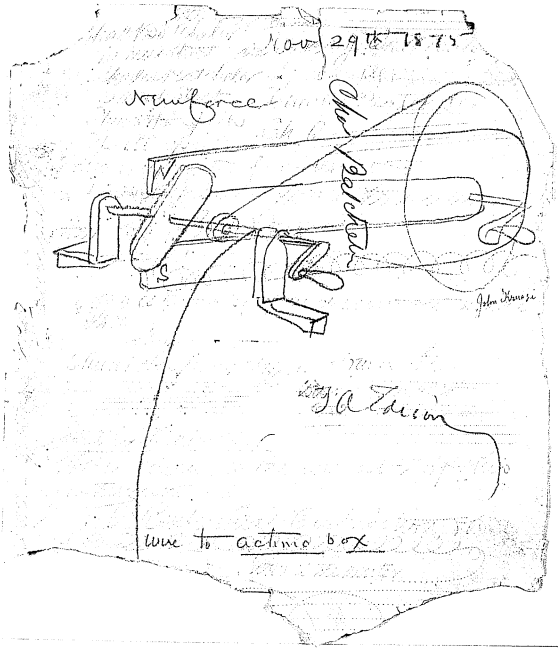
Hypo. Na - Sesqui Ch Ts & NaCl makes black mark on platinum with platinum might be built up = no good in emly

Tartaric A + Grape Sugar dont improve mark =

Sul Zinc slight slip on ⊙ but no considerable on ⊕.

Urio. A slight (very) increase fading on ⊙,

Ordinary pyro acts one way & then another under 2 mins from same roll — ~~more~~ phenomena must be on platinum absorbing gas =



Unbound Notes and Drawings, 1874-1878

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